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Pandinus (*Pandinops*) *pococki* sp. n. from Somalia, and *Pandinus pugilator*, a junior synonym of *Pandinus* (*Pandinops*) *bellicosus* comb. n. (Scorpiones, Scorpionidae)

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Abstract. *Pandinus* (*Pandinops*) *pococki* sp. n. is described and a key to the species of the subgenus *Pandinops* Birula, 1913 is provided. Based on the presence of seven internal granules on the chela, *Pandinus bellicosus* (L. Koch, 1875) is transferred from subgenus *Pandinurus* to the subgenus *Pandinops*. *Pandinus* (*Pandinops*) *pugilator* is hereby synonymized with *Pandinus* (*Pandinops*) *bellicosus*.

Key Words: Taxonomy, description, new species, new synonymy, key to species, Scorpiones, Scorpionidae, Pandinus, Pandinops, Pandinurus, Somalia, Eritrea

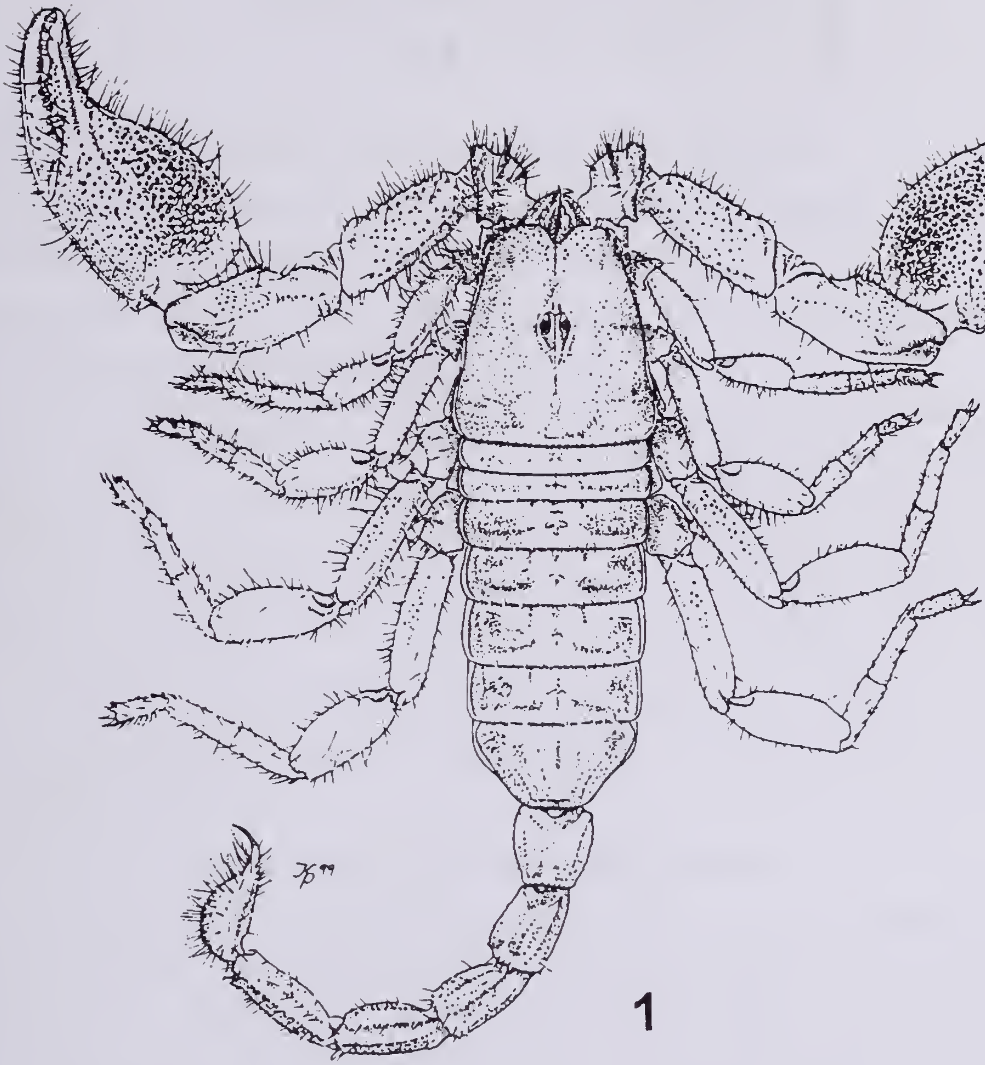

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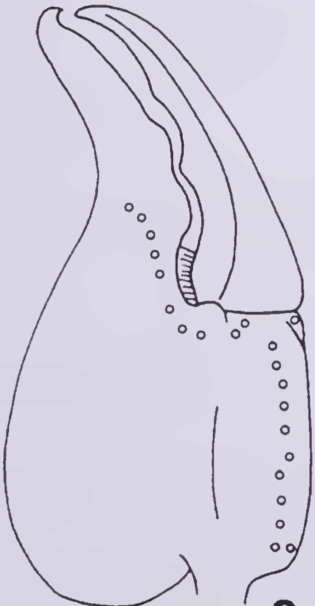
Fig. 1. *Pandinus* (*Pandinops*) *pococki* sp. n., holotype, dorsal aspect.

Fig. 2. *Pandinus* (*Pandinops*) *pococki* sp. n., holotype, chela of pedipalp, ventral and internal views.



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Pandinus (*Pandinops*) *pococki* sp. n.

(Figs. 1 and 2, Table 1)

TYPE LOCALITY. Somalia: Geriban env., 09°20'N 48°09'E.

TYPE MATERIAL. Somalia: Geriban env., 09°20'N 48°09'E, VI.1980, 1 male (holotype), author´s collection. No other material.

ETYMOLOGY. Named after Reginald Innes Pocock, who described the majority of other species of the subgenus *Pandinops*.

DESCRIPTION. Total length of the male holotype is 93 mm. Measurements of the carapace, telson, segments of the metasoma and segments of the pedipalps, and numbers of pectinal teeth are given in Table 1. Habitus is shown in Fig. 1. For the position and distribution of trichobothria on the chela of pedipalp see Fig. 2. There are eight internal granules on the chela, which characterize the subgenus *Pandinops* (see Birula, 1913: 419; Birula, 1928: 88; Vachon, 1974: 953).

The base colour is uniformly brown. The telson is yellowish brown.

The pectens are very long, and stigmata are long and very narrow (fissure-like).

The carapace lacks keels but bears large granules.

The manus of pedipalp has a lobe (Fig. 1) and is dorsally covered by tubercles which locally form keels but do not attain the shape of pointed granules; such granules are sparsely distributed only on the ventral surface of the manus. The patella of pedipalp bears three keels and the femur bears four keels, all composed of unequally sized granules. The dorsal and internal surfaces of the femur are covered by large granules.

The mesosoma bears granules and a median keel. The seventh mesosomal segment ventrally bears numerous granules, as do all other metasomal segments. The first through fourth metasomal segments have six keels and the fifth segment has seven keels, of which one is ventral.

AFFINITIES. The described features distinguish *Pandinus* (*Pandinops*) *pococki* sp. n. from all other species of the subgenus. They are recounted in the key below.

Key to *Pandinus* (*Pandinops*) species

1. First and second metasomal segments ventrally smooth, without granules (smooth, effaced keels may be present) ....
.... *P. bellicosus* (L. Koch, 1875) **comb. n.**

-. First and second metasomal segments ventrally bear closely spaced granules
.... 2

2. Ventral and dorsal surfaces of manus smooth, without granules, or ventral surface rarely bears sparse granules .... *P. hawkeri* Pocock, 1900
-. Ventral surface of manus with granules, dorsal surface with granules or conspicuous tubercles 3

3. Dorsal surface of manus densely covered by pointed granules ....
.... *P. colei* (Pocock, 1896)
-. Dorsal surface of manus tuberculate, without pointed granules 4

4. Dorsal keel of patella, carapace, and mesosomal segments smooth, without granules .... *P. peeli* Pocock, 1900
-. Dorsal keel of patella composed of well defined granules; carapace and mesosomal segments bear numerous larger granules .... *P. pococki* **sp. n.**

Pandinus (Pandinops) bellicosus (L. Koch, 1875), **comb. n.**

Heterometrus bellicosus L. Koch, 1875: 1; Moritz & Fischer, 1980: 310.
Scorpio bellicosus: Pocock, 1888: 255; Kraepelin, 1898: 5.
Scorpio africanus bellicosus: Kraepelin, 1894: 69.
Pandinus bellicosus: Karsch, 1887: 68; Kraepelin, 1899: 121.
Pandinus (*Heterometrus*) *bellicosus*: Karsch, 1879: 128.
Pandinus (*Pandinus*) *bellicosus*: Birula, 1928: 88.
Pandinus (*Pandinurus*) *bellicosus*: Vachon, 1974: 953; Lamoral & Reynders, 1975: 565; El-Hennawy, 1992: 137; Kovařík, 1998: 140.
Pandinus pugilator Pocock, 1900: 52; Pocock, 1900: 61. **Syn. n.**
Pandinus (*Pandinus*) *pugilator*: Birula, 1928: 88.
Pandinus (*Pandinops*) *pugilator*: Vachon, 1974: 953; Lamoral & Reynders, 1975: 565; El-Hennawy, 1992: 136; Kovařík, 1998: 140.

TYPE LOCALITY. Cairo.

TYPE MATERIAL. ?: Habab, 1 male (holotype), leg. Jickeli, Museum für Naturkunde der Humboldt-Universität zu Berlin, Germany No. 2521. **Somalia**: Berbera, 16.IV.1897 or Hargaisa, 1 specimen (holotype of *Pandinus pugilator*), leg. Peel, British Museum (Natural History), London, England.

COMMENTS. *Pandinus bellicosus* is based on a male for which L. Koch (1875: 4) gives Cairo as the type locality. However, this provenance is most likely erroneous, as the species has never afterwards been found in Egypt. No original label is attached to the holotype, instead it bears a label stating: holotype Pandinus bellicosus (L. Koch, 1875), Habab, Jickeli leg., Nr. 2521.

Table 1. Measurements in millimeters of holotypes of species of the subgenus *Pandinops*. Numbers of teeth in the pecten of *P. peeli* and *P. pugilator* are after Pocock (1900: 53). The holotypes are damaged and pectens are partially or wholly lacking. Due to damage, sex cannot be ascertained for *P. pugilator*.

		Pandinus					
		pococki sp.n.	*colei*	*hawkeri*	*peeli*	*pugilator*	*bellicosus*
		male	female	female	male		male
Total	length	93.0	79.3	86.3	88.0	104.0	89.2
Carapace	length	16.9	12.3	15.0	14.1	17.2	15.9
	width	15.2	11.0	14.4	13.5	16.6	15.2
Metasoma	length	46.2	32.8	38.3	38.4	48.0	44.6
segment I	length	5.8	4.0	4.5	4.7	5.8	5.2
	width	5.2	4.3	5.1	5.4	5.5	5.4
segment II	length	6.2	4.3	5.0	5.1	6.5	5.9
	width	4.9	3.9	4.5	4.8	4.9	4.8
segment III	length	6.7	4.8	5.4	5.5	6.9	6.2
	width	4.5	3.7	4.4	4.5	4.4	4.3
segment IV	length	7.4	5.4	6.3	6.6	8.1	7.2
	width	4.1	3.3	3.9	4.2	3.8	4.0
segment V	length	8.7	6.5	7.5	7.5	10.1	9.4
	width	3.8	2.9	3.6	3.9	3.6	3.9
telson	length	10.0	7.0	8.6	8.6	9.5	9.7
Pedipalp							
femur	length	12.2	7.2	9.8	9.6	11.9	11.6
	width	5.0	3.7	4.6	5.0	5.2	5.4
patella	length	13.0	8.4	10.8	11.8	12.8	13.0
	width	5.5	4.0	5.1	5.7	6.5	5.8
tibia	length	25.0	15.5	21.4	22.3	27.0	24.7
	width	13.0	9.2	11.7	13.5	15.3	14.3
finger mov.	length	15.5	9.0	12.5	13.2	16.0	15.5
Pectinal teeth		17:16	11:11	12:13	15	17	20:19

Pandinus pugilator was based by Pocock on a damaged specimen (originally stuffed and kept dry, but currently is in alcohol), whose pectens are wholly lacking. Due to damage, sex cannot be ascertained. This holotype was examined by Prof. Vachon (VA No. 1136) and correctly placed by him in the subgenus *Pandinops* (Vachon, 1974: 953), which is characterized by the presence of 6 – 8 internal granules on the chela. However, *Pandinus bellicosus* was incorrectly placed by Vachon (1974: 953) in the subgenus *Pandinurus* (which is inter alia characterized by the presence of only two internal granules on the chela), without mentioning whether he had seen the holotype of this species.

Examination of the holotype of *Pandinus bellicosus* reveals that it has seven internal granules on the chela and therefore belongs to the subgenus *Pandinops*, and after seeing the holotype of *Pandinus pugilator* I am convinced that it is the same species.

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References

Birula, A.A.B. 1913
Arachnologische Beiträge. II.-IV. II. Ueber einige Scorpiops-Arten von dem Südabhange des Himalaya. III. Ueber Pandinus (Pandinops) peeli Poc. und seine Verwandten. *Revue Russ. Entom.* 13(3-4): 416-423.

Birula, A.A.B. 1928
Wissenschaftliche Ergebnisse der mit Unterstützung der Akademie der Wissenschaften in Wien aus der Erbschaft Treitl von F. Werner unternommenen Zoologischen Expedition nach dem Anglo-Ägyptischen Sudan (Kordofan) 1914. XXV. Skorpione. *Denschr. Akad. Wiss. Wien* 101: 79-88.

El-Hennawy, H.K. 1992
A catalogue of the scorpions described from the Arab countries (1758-1990) (Arachnida: Scorpionida). *Serket* 2(4): 95-153.

Karsch, F. 1879
Skorpionologische Beiträge I. and II. *Mit. Münch. Entomol. Ver.* 3: 6-22, 97-136.

Karsch, F. 1887
Ueber einige neue und minder bekannte Arthropoden des Bremer Museums. *Abhandl. Nat.-Wiss. Ver. Bremen* 9: 65-71.

Koch, L. 1875
Aegyptische und Abyssinische Arachniden gesammelt von Herrn C. Jickeli. *Verlag von Bauer & Raspe, Nürnberg,* 96 pp.

Kovařík, F. 1998
Štíři [*Scorpiones*]. Jihlava (Czech Republic): Publishing House "Madagaskar", 176 pp (in Czech).

Kraepelin, K. 1894
Revision der Skorpione. II. Scorpionidae und Bothriuridae. *Jahrb. Hamburg. Wiss. Anst.* 11(1893): 1-248.

Kraepelin, K. 1898
Die Skorpione Ostafrikas. *Thier. Ost-Afrik. Nachb., Berlin* 4: 1-5.

Kraepelin, K. 1899
Das Tierreich. 8. Lieferung. Scorpiones und Pedipalpi. Berlin: Verlag von R. Friedländer und Sohn, 265 pp.

Lamoral, B.H. & Reynders, S. 1975
A catalogue of the scorpions described from the Ethiopian Faunal Region up to December 1973. *Ann. Natal Mus.* 22: 489-576.

Moritz, M. & Fischer, S.-Ch. 1980
Die Typen der Arachniden-Sammlung des zoologischen Museums Berlin. III. Scorpiones. *Mitt. Zool. Mus. Berlin* 56: 309-326.

Pocock, R.I. 1896
Report upon the Scorpions, Spiders, Centipedes, and Millipedes obtained by Mr. and Mrs. E. Lort Philips in the Goolis Mountains Inland of Berbera, N. Somaliland. *Ann. Mag. Nat. Hist.* 6(18): 178-186.

Pocock, R.I. 1900
On a collection of Insects and Arachnids made in 1895 and 1897 by Mr. C.A.V.Peel, F. Z. S. in Somaliland, with descriptions of new species. 9. Chilopoda and Arachnida. 10. General List of the Scorpions of Somaliland and the Boran Country. *Proc. Zool. Soc. London* 1900: 48-63.

Vachon, M. 1974
Étude des caractères utilisés pour classer les familles et les genres de Scorpions (Arachnides). *Bull. Mus. Natn. Hist. Nat. Paris* 140: 857-958.

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